

SEQUENCE LISTING

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<120> Methods of Treating Diseases Responsive to Induction of Apoptosis
and Screening Assays

<130> 1735.0870001

<150> 60/463,687
<151> 2003-04-18

<160> 31

<170> PatentIn version 3.2

<210> 1
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<212> PRT
<213> Homo sapiens

<220>
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protein)

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Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Ile Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala
85 90 95

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val
165 170 175

Met Gly Ser Arg Leu Gly Gln Met Val Leu Ser Gly Val Asp Thr Val
180 185 190

Leu Gly Lys Ser Glu Glu Trp Ala Asp Asn His Leu Pro Leu Thr Asp
195 200 205

Ala Glu Leu Ala Arg Ile Ala Thr Ser Leu Asp Gly Phe Asp Val Ala
210 215 220

Ser Val Gln Gln Gln Arg Gln Glu Gln Ser Tyr Phe Val Arg Leu Gly
225 230 235 240

Ser Leu Ser Glu Arg Leu Arg Gln His Ala Tyr Glu His Ser Leu Gly
245 250 255

Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu
260 265 270

Ser Gln Val Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro

340	345	350
Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp		
355	360	365
Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser		
370	375	380
Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala		
385	390	395 400
Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp		
405	410	415
Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu		
420	425	430
Lys Lys		

<210> 2
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 <213> Homo sapiens

<220>
 <223> cargo selection protein (mannose 6 phosphate receptor binding protein)

<400> 2

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val	
1 5 10 15	
Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met	
20 25 30	
Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser	
35 40 45	
Thr Lys Glu Ser Tyr Pro His Ile Lys Thr Val Cys Asp Ala Ala Glu	
50 55 60	
Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro	
65 70 75 80	
Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala	
85 90 95	

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val
165 170 175

Met Gly Ser Arg Leu Gly Gln Met Val Leu Ser Gly Val Asp Thr Val
180 185 190

Leu Gly Lys Ser Glu Glu Trp Ala Asp Asn His Leu Pro Leu Thr Asp
195 200 205

Ala Glu Leu Ala Arg Ile Ala Thr Ser Leu Asp Gly Phe Asp Val Ala
210 215 220

Ser Val Gln Gln Gln Arg Gln Glu Gln Ser Tyr Phe Val Arg Leu Gly
225 230 235 240

Ser Leu Ser Glu Arg Leu Arg Gln His Ala Tyr Glu His Ser Leu Gly
245 250 255

Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu
260 265 270

Ser Gln Ala Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

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<213> Homo sapiens

<220>
<223> placental protein 17b1; PP17b1

<400> 3

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Val Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Trp Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala

85										90					95				
His	Arg	Gly	Leu	Asp	Lys	Leu	Glu	Glu	Asn	Leu	Pro	Met	Leu	Arg	Gln				
			100					105						110					
Pro	Thr	Glu	Lys	Val	Leu	Ala	Asp	Thr	Lys	Glu	Leu	Val	Ser	Ser	Lys				
		115					120					125							
Val	Ser	Gly	Ala	Gln	Glu	Met	Val	Ser	Ser	Ala	Lys	Asp	Thr	Val	Ala				
	130					135					140								
Thr	Gln	Leu	Ser	Glu	Ala	Val	Asp	Ala	Thr	Arg	Gly	Ala	Val	Gln	Ser				
145					150					155					160				
Gly	Val	Asp	Lys	Thr	Lys	Ser	Val	Val	Thr	Gly	Gly	Val	Gln	Ser	Val				
				165					170					175					
Met	Gly	Ser	Arg	Leu	Gly	Gln	Met	Val	Leu	Ser	Gly	Val	Asp	Thr	Val				
			180					185					190						
Leu	Gly	Lys	Ser	Glu	Glu	Trp	Ala	Asp	Asn	His	Leu	Pro	Leu	Thr	Asp				
		195					200					205							
Ala	Glu	Leu	Ala	Arg	Ile	Ala	Thr	Ser	Leu	Asp	Gly	Phe	Asp	Val	Ala				
	210					215					220								
Ser	Val	Gln	Gln	Gln	Arg	Gln	Glu	Gln	Ser	Tyr	Phe	Val	Arg	Leu	Gly				
225					230					235					240				
Ser	Leu	Ser	Glu	Arg	Leu	Arg	Gln	His	Ala	Tyr	Glu	His	Ser	Leu	Gly				
				245					250					255					
Lys	Leu	Arg	Ala	Thr	Lys	Gln	Arg	Ala	Gln	Glu	Ala	Leu	Leu	Gln	Leu				
			260					265						270					
Ser	Gln	Ala	Leu	Ser	Leu	Met	Glu	Thr	Val	Lys	Gln	Gly	Val	Asp	Gln				
		275					280					285							
Lys	Leu	Val	Glu	Gly	Gln	Glu	Lys	Leu	His	Gln	Met	Trp	Leu	Ser	Trp				
	290					295					300								
Asn	Gln	Lys	Gln	Leu	Gln	Gly	Pro	Glu	Lys	Glu	Pro	Pro	Lys	Pro	Glu				
305					310					315					320				
Gln	Val	Glu	Ser	Arg	Ala	Leu	Thr	Met	Phe	Arg	Asp	Ile	Ala	Gln	Gln				
				325					330					335					

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 4
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<213> Homo sapiens

<220>
<223> placental protein 17a2; PP17a2

<400> 4

Met Val Leu Ser Gly Val Asp Thr Val Leu Gly Lys Ser Glu Glu Trp
1 5 10 15

Ala Asp Asn His Leu Pro Leu Thr Asp Ala Glu Leu Ala Arg Ile Ala
20 25 30

Thr Ser Leu Asp Gly Phe Asp Val Ala Ser Val Gln Gln Gln Arg Gln
35 40 45

Glu Gln Ser Tyr Phe Val Arg Leu Gly Ser Leu Ser Glu Arg Leu Arg
50 55 60

Gln His Ala Tyr Glu His Ser Leu Gly Lys Leu Arg Ala Thr Lys Gln
65 70 75 80

Arg Ala Gln Glu Ala Leu Leu Gln Leu Ser Gln Ala Leu Ser Leu Met
85 90 95

Glu Thr Val Lys Gln Gly Val Asp Gln Lys Leu Val Glu Gly Gln Glu
100 105 110

Lys Leu His Gln Met Trp Leu Ser Trp Asn Gln Lys Gln Leu Gln Gly
115 120 125

Pro Glu Lys Glu Pro Pro Lys Pro Glu Gln Val Glu Ser Arg Ala Leu
130 135 140

Thr Met Phe Arg Asp Ile Ala Gln Gln Leu Gln Ala Thr Cys Thr Ser
145 150 155 160

Leu Gly Ser Ser Ile Gln Gly Leu Pro Thr Asn Val Lys Asp Gln Val
165 170 175

Gln Gln Ala Arg Arg Gln Val Glu Asp Leu Gln Ala Thr Phe Ser Ser
180 185 190

Ile His Ser Phe Gln Asp Leu Ser Ser Ser Ile Leu Ala Gln Ser Arg
195 200 205

Glu Arg Val Ala Ser Ala Arg Glu Ala Leu Asp His Met Val Glu Tyr
210 215 220

Val Ala Gln Asn Thr Pro Val Thr Trp Leu Val Gly Pro Phe Ala Pro
225 230 235 240

Gly Ile Thr Glu Lys Ala Pro Glu Glu Lys Lys
245 250

<210> 5
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<213> Homo sapiens

<220>
<223> cargo selection protein (mannose 6 phosphate receptor binding
protein)
<400> 5

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met

20	25	30
Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser		
35	40	45
Thr Lys Glu Ser Tyr Pro His Ile Lys Thr Val Cys Asp Ala Ala Glu		
50	55	60
Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro		
65	70	75 80
Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala		
	85	90 95
His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln		
	100	105 110
Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys		
	115	120 125
Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala		
	130	135 140
Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser		
145	150	155 160
Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val		
	165	170 175
Met Gly Ser Arg Leu Gly Gln Met Val Leu Ser Gly Val Asp Thr Val		
	180	185 190
Leu Gly Lys Ser Glu Glu Trp Ala Asp Asn His Leu Pro Leu Thr Asp		
	195	200 205
Ala Glu Leu Ala Arg Ile Ala Thr Ser Leu Asp Gly Phe Asp Val Ala		
	210	215 220
Ser Val Gln Gln Gln Arg Gln Glu Gln Ser Tyr Phe Val Arg Leu Gly		
225	230	235 240
Ser Leu Ser Glu Arg Leu Arg Gln His Ala Tyr Glu His Ser Leu Gly		
	245	250 255
Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu		
	260	265 270

Ser Gln Ala Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 6
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<220>
<223> cargo selection protein (mannose 6 phosphate receptor binding protein)

<400> 6

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu	Glu	Pro	Val	Gln	Gln	Pro	Ser	Val	Val	Asp	Arg	Val	Ala	Ser	Met	
			20					25					30			
Pro	Leu	Ile	Ser	Ser	Thr	Cys	Asp	Met	Val	Ser	Ala	Ala	Tyr	Ala	Ser	
		35					40					45				
Thr	Lys	Glu	Ser	Tyr	Pro	His	Ile	Lys	Thr	Val	Cys	Asp	Ala	Ala	Glu	
	50					55					60					
Lys	Gly	Val	Arg	Thr	Leu	Thr	Ala	Ala	Ala	Val	Ser	Gly	Ala	Gln	Pro	
65					70					75					80	
Ile	Leu	Ser	Lys	Leu	Glu	Pro	Gln	Ile	Ala	Ser	Ala	Ser	Glu	Tyr	Ala	
			85						90					95		
His	Arg	Gly	Leu	Asp	Lys	Leu	Glu	Glu	Asn	Leu	Pro	Ile	Leu	Gln	Gln	
			100					105						110		
Pro	Thr	Glu	Lys	Val	Leu	Ala	Asp	Thr	Lys	Glu	Leu	Val	Ser	Ser	Lys	
		115					120					125				
Val	Ser	Gly	Ala	Gln	Glu	Met	Val	Ser	Ser	Ala	Lys	Asp	Thr	Val	Ala	
	130					135					140					
Thr	Gln	Leu	Ser	Glu	Ala	Val	Asp	Ala	Thr	Arg	Gly	Ala	Val	Gln	Ser	
145					150					155					160	
Gly	Val	Asp	Lys	Thr	Lys	Ser	Val	Val	Thr	Gly	Gly	Val	Gln	Ser	Val	
				165					170					175		
Met	Gly	Ser	Arg	Leu	Gly	Gln	Met	Val	Leu	Ser	Gly	Val	Asp	Thr	Val	
			180					185					190			
Leu	Gly	Lys	Ser	Glu	Glu	Trp	Ala	Asp	Asn	His	Leu	Pro	Leu	Thr	Asp	
		195					200					205				
Ala	Glu	Leu	Ala	Arg	Ile	Ala	Thr	Ser	Leu	Asp	Gly	Phe	Asp	Val	Ala	
	210					215					220					
Ser	Val	Gln	Gln	Gln	Arg	Gln	Glu	Gln	Ser	Tyr	Phe	Val	Arg	Leu	Gly	
225					230					235					240	
Ser	Leu	Ser	Glu	Arg	Leu	Arg	Gln	His	Ala	Tyr	Glu	His	Ser	Leu	Gly	
			245						250						255	

Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu
260 265 270

Ser Gln Ala Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 7
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<213> Homo sapiens

<220>
<223> cargo selection protein TIP47

<400> 7

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Val Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala
85 90 95

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val
165 170 175

Met Gly Ser Arg Leu Gly Gln Met Val Leu Ser Gly Val Asp Thr Val
180 185 190

Leu Gly Lys Ser Glu Glu Trp Ala Asp Asn His Leu Pro Leu Thr Asp
195 200 205

Ala Glu Leu Ala Arg Ile Ala Thr Ser Leu Asp Gly Phe Asp Val Ala
210 215 220

Ser Val Gln Gln Gln Arg Gln Glu Gln Ser Tyr Phe Val Arg Leu Gly
225 230 235 240

Ser Leu Ser Glu Arg Leu Arg Gln His Ala Tyr Glu His Ser Leu Gly
245 250 255

Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu
260 265 270

Ser Gln Ala Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 8

<211> 434

<212> PRT

<213> Homo sapiens

<220>

<223> Cargo selection protein (mannose 6 phosphate receptor binding protein)

<400> 8

Met	Ser	Ala	Asp	Gly	Ala	Glu	Ala	Asp	Gly	Ser	Thr	Gln	Val	Thr	Val	1	5	10	15
Glu	Glu	Pro	Val	Gln	Gln	Pro	Ser	Val	Val	Asp	Arg	Val	Ala	Ser	Met	20	25	30	
Pro	Leu	Ile	Ser	Ser	Thr	Cys	Asp	Met	Val	Ser	Ala	Ala	Tyr	Ala	Ser	35	40	45	
Thr	Lys	Glu	Ser	Tyr	Pro	His	Val	Lys	Thr	Val	Cys	Asp	Ala	Ala	Glu	50	55	60	
Lys	Gly	Val	Arg	Thr	Leu	Thr	Ala	Ala	Ala	Val	Ser	Gly	Ala	Gln	Pro	65	70	75	80
Ile	Leu	Ser	Lys	Leu	Glu	Pro	Gln	Ile	Ala	Ser	Ala	Ser	Glu	Tyr	Ala	85	90	95	
His	Arg	Gly	Leu	Asp	Lys	Leu	Glu	Glu	Asn	Leu	Pro	Ile	Leu	Gln	Gln	100	105	110	
Pro	Thr	Glu	Lys	Val	Leu	Ala	Asp	Thr	Lys	Glu	Leu	Val	Ser	Ser	Lys	115	120	125	
Val	Ser	Gly	Ala	Gln	Glu	Met	Val	Ser	Ser	Ala	Lys	Asp	Thr	Val	Ala	130	135	140	
Thr	Gln	Leu	Ser	Glu	Ala	Val	Asp	Ala	Thr	Arg	Gly	Ala	Val	Gln	Ser	145	150	155	160
Gly	Val	Asp	Lys	Thr	Lys	Ser	Val	Val	Thr	Gly	Gly	Val	Gln	Ser	Val	165	170	175	
Met	Gly	Ser	Arg	Leu	Gly	Gln	Met	Val	Leu	Ser	Gly	Val	Asp	Thr	Val	180	185	190	
Leu	Gly	Lys	Ser	Glu	Glu	Trp	Ala	Asp	Asn	His	Leu	Pro	Leu	Thr	Asp	195	200	205	
Ala	Glu	Leu	Ala	Arg	Ile	Ala	Thr	Ser	Leu	Asp	Gly	Phe	Asp	Val	Ala	210	215	220	
Ser	Val	Gln	Gln	Gln	Arg	Gln	Glu	Gln	Ser	Tyr	Phe	Val	Arg	Leu	Gly	225	230	235	240
Ser	Leu	Ser	Glu	Arg	Leu	Arg	Gln	His	Ala	Tyr	Glu	His	Ser	Leu	Gly				

245					250					255					
Lys	Leu	Arg	Ala	Thr	Lys	Gln	Arg	Ala	Gln	Glu	Ala	Leu	Leu	Gln	Leu
			260					265					270		
Ser	Gln	Ala	Leu	Ser	Leu	Met	Glu	Thr	Val	Lys	Gln	Gly	Val	Asp	Gln
		275					280					285			
Lys	Leu	Val	Glu	Gly	Gln	Glu	Lys	Leu	His	Gln	Met	Trp	Leu	Ser	Trp
	290					295					300				
Asn	Gln	Lys	Gln	Leu	Gln	Gly	Pro	Glu	Lys	Glu	Pro	Pro	Lys	Pro	Glu
305						310					315				320
Gln	Val	Glu	Ser	Arg	Ala	Leu	Thr	Met	Phe	Arg	Asp	Ile	Ala	Gln	Gln
				325					330					335	
Leu	Gln	Ala	Thr	Cys	Thr	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Gly	Leu	Pro
			340					345					350		
Thr	Asn	Val	Lys	Asp	Gln	Val	Gln	Gln	Ala	Arg	Arg	Gln	Val	Glu	Asp
		355					360					365			
Leu	Gln	Ala	Thr	Phe	Ser	Ser	Ile	His	Ser	Phe	Gln	Asp	Leu	Ser	Ser
	370					375					380				
Ser	Ile	Leu	Ala	Gln	Ser	Arg	Glu	Arg	Val	Ala	Ser	Ala	Arg	Glu	Ala
385						390					395				400
Leu	Asp	His	Met	Val	Glu	Tyr	Val	Ala	Gln	Asn	Thr	Pro	Val	Thr	Trp
			405						410					415	
Leu	Val	Gly	Pro	Phe	Ala	Pro	Gly	Ile	Thr	Glu	Lys	Ala	Pro	Glu	Glu
		420						425					430		
Lys Lys															

<210> 9

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<212> PRT

<213> Homo sapiens

<220>

<223> cargo selection protein (mannose 6 phosphate receptor binding protein)

<400> 9

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Val Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala
85 90 95

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val
165 170 175

Met Gly Ser Arg Leu Gly Gln Met Val Leu Ser Gly Val Asp Thr Val
180 185 190

Leu Gly Lys Ser Glu Glu Trp Ala Asp Asn His Leu Pro Leu Thr Asp
195 200 205

Ala Glu Leu Ala Arg Ile Ala Thr Ser Leu Asp Gly Phe Asp Val Ala
210 215 220

Ser Val Gln Gln Gln Arg Gln Glu Gln Ser Tyr Phe Val Arg Leu Gly
225 230 235 240

Ser Leu Ser Glu Arg Leu Arg Gln His Ala Tyr Glu His Ser Leu Gly
245 250 255

Lys Leu Arg Ala Thr Lys Gln Arg Ala Gln Glu Ala Leu Leu Gln Leu
260 265 270

Ser Gln Ala Leu Ser Leu Met Glu Thr Val Lys Gln Gly Val Asp Gln
275 280 285

Lys Leu Val Glu Gly Gln Glu Lys Leu His Gln Met Trp Leu Ser Trp
290 295 300

Asn Gln Lys Gln Leu Gln Gly Pro Glu Lys Glu Pro Pro Lys Pro Glu
305 310 315 320

Gln Val Glu Ser Arg Ala Leu Thr Met Phe Arg Asp Ile Ala Gln Gln
325 330 335

Leu Gln Ala Thr Cys Thr Ser Leu Gly Ser Ser Ile Gln Gly Leu Pro
340 345 350

Thr Asn Val Lys Asp Gln Val Gln Gln Ala Arg Arg Gln Val Glu Asp
355 360 365

Leu Gln Ala Thr Phe Ser Ser Ile His Ser Phe Gln Asp Leu Ser Ser
370 375 380

Ser Ile Leu Ala Gln Ser Arg Glu Arg Val Ala Ser Ala Arg Glu Ala
385 390 395 400

Leu Asp His Met Val Glu Tyr Val Ala Gln Asn Thr Pro Val Thr Trp
405 410 415

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 10
<211> 251
<212> PRT
<213> Homo sapiens

<220>
<223> placental protein 17a1; PP17a1

<400> 10

Met Val Leu Ser Gly Val Asp Thr Val Leu Gly Lys Ser Glu Glu Trp
1 5 10 15

Ala Asp Asn His Leu Pro Leu Thr Asp Ala Glu Leu Ala Arg Ile Ala
20 25 30

Thr Ser Leu Asp Gly Phe Asp Val Ala Ser Val Gln Gln Gln Arg Gln
35 40 45

Glu Gln Ser Tyr Phe Val Arg Leu Gly Ser Leu Ser Glu Arg Leu Arg
50 55 60

Gln His Ala Tyr Glu His Ser Leu Gly Lys Leu Arg Ala Thr Lys Gln
65 70 75 80

Arg Ala Gln Glu Ala Leu Leu Gln Leu Ser Gln Ala Leu Ser Leu Met
85 90 95

Glu Thr Val Lys Gln Gly Val Asp Gln Lys Leu Val Glu Gly Gln Glu
100 105 110

Lys Leu His Gln Met Trp Leu Ser Trp Asn Gln Lys Gln Leu Gln Gly
115 120 125

Pro Glu Lys Glu Pro Pro Lys Pro Glu Gln Val Glu Ser Arg Ala Leu
130 135 140

Thr Met Phe Arg Asp Ile Ala Gln Gln Leu Gln Ala Thr Cys Thr Ser
145 150 155 160

Leu Gly Ser Ser Ile Gln Gly Leu Pro Thr Asn Val Lys Asp Gln Val
165 170 175

Gln Gln Ala Arg Arg Gln Val Glu Asp Leu Gln Ala Thr Phe Ser Ser
180 185 190

Ile His Ser Phe Gln Asp Leu Ser Ser Ser Ile Leu Ala Gln Ser Arg
195 200 205

Glu Arg Val Ala Ser Ala Arg Glu Ala Leu Asp His Met Val Glu Tyr
210 215 220

Val Ala Gln Asn Thr Pro Val Thr Trp Leu Val Gly Pro Phe Ala Pro
225 230 235 240

Gly Ile Thr Glu Lys Ala Pro Glu Glu Lys Lys
245 250

<210> 11
<211> 434
<212> PRT
<213> Homo sapiens

<220>
<223> Cargo selection protein TIP47 (47 kDa mannose 6-phosphate
receptor-binding protein) (47 kDa MPR-binding protein) (Placental
protein 17)

<400> 11

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Val Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala
85 90 95

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val
165 170 175

Met	Gly	Ser	Arg	Leu	Gly	Gln	Met	Val	Leu	Ser	Gly	Val	Asp	Thr	Val			
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Leu	Gly	Lys	Ser	Glu	Glu	Trp	Ala	Asp	Asn	His	Leu	Pro	Leu	Thr	Asp			
		195					200					205						
Ala	Glu	Leu	Ala	Arg	Ile	Ala	Thr	Ser	Leu	Asp	Gly	Phe	Asp	Val	Ala			
	210					215					220							
Ser	Val	Gln	Gln	Gln	Arg	Gln	Glu	Gln	Ser	Tyr	Phe	Val	Arg	Leu	Gly			
225					230					235					240			
Ser	Leu	Ser	Glu	Arg	Leu	Arg	Gln	His	Ala	Tyr	Glu	His	Ser	Leu	Gly			
				245					250					255				
Lys	Leu	Arg	Ala	Thr	Lys	Gln	Arg	Ala	Gln	Glu	Ala	Leu	Leu	Gln	Leu			
		260						265					270					
Ser	Gln	Ala	Leu	Ser	Leu	Met	Glu	Thr	Val	Lys	Gln	Gly	Val	Asp	Gln			
		275					280					285						
Lys	Leu	Val	Glu	Gly	Gln	Glu	Lys	Leu	His	Gln	Met	Trp	Leu	Ser	Trp			
	290					295					300							
Asn	Gln	Lys	Gln	Leu	Gln	Gly	Pro	Glu	Lys	Glu	Pro	Pro	Lys	Pro	Glu			
305					310					315					320			
Gln	Val	Glu	Ser	Arg	Ala	Leu	Thr	Met	Phe	Arg	Asp	Ile	Ala	Gln	Gln			
				325					330					335				
Leu	Gln	Ala	Thr	Cys	Thr	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Gly	Leu	Pro			
			340					345					350					
Thr	Asn	Val	Lys	Asp	Gln	Val	Gln	Gln	Ala	Arg	Arg	Gln	Val	Glu	Asp			
		355					360					365						
Leu	Gln	Ala	Thr	Phe	Ser	Ser	Ile	His	Ser	Phe	Gln	Asp	Leu	Ser	Ser			
	370					375					380							
Ser	Ile	Leu	Ala	Gln	Ser	Arg	Glu	Arg	Val	Ala	Ser	Ala	Arg	Glu	Ala			
385					390					395					400			
Leu	Asp	His	Met	Val	Glu	Tyr	Val	Ala	Gln	Asn	Thr	Pro	Val	Thr	Trp			
			405						410					415				

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 12
<211> 434
<212> PRT
<213> Homo sapiens

<220>
<223> Sequence 1 from patent US 5989820

<400> 12

Met Ser Ala Asp Gly Ala Glu Ala Asp Gly Ser Thr Gln Val Thr Val
1 5 10 15

Glu Glu Pro Val Gln Gln Pro Ser Val Val Asp Arg Val Ala Ser Met
20 25 30

Pro Leu Ile Ser Ser Thr Cys Asp Met Val Ser Ala Ala Tyr Ala Ser
35 40 45

Thr Lys Glu Ser Tyr Pro His Val Lys Thr Val Cys Asp Ala Ala Glu
50 55 60

Lys Gly Val Arg Thr Leu Thr Ala Ala Ala Val Ser Gly Ala Gln Pro
65 70 75 80

Ile Leu Ser Lys Leu Glu Pro Gln Ile Ala Ser Ala Ser Glu Tyr Ala
85 90 95

His Arg Gly Leu Asp Lys Leu Glu Glu Asn Leu Pro Ile Leu Gln Gln
100 105 110

Pro Thr Glu Lys Val Leu Ala Asp Thr Lys Glu Leu Val Ser Ser Lys
115 120 125

Val Ser Gly Ala Gln Glu Met Val Ser Ser Ala Lys Asp Thr Val Ala
130 135 140

Thr Gln Leu Ser Glu Ala Val Asp Ala Thr Arg Gly Ala Val Gln Ser
145 150 155 160

Gly Val Asp Lys Thr Lys Ser Val Val Thr Gly Gly Val Gln Ser Val

				165						170						175
Met	Gly	Ser	Arg	Leu	Gly	Gln	Met	Val	Leu	Ser	Gly	Val	Asp	Thr	Val	
			180					185					190			
Leu	Gly	Lys	Ser	Glu	Glu	Trp	Ala	Asp	Asn	His	Leu	Pro	Leu	Thr	Asp	
		195					200					205				
Ala	Glu	Leu	Ala	Arg	Ile	Ala	Thr	Ser	Leu	Asp	Gly	Phe	Asp	Val	Ala	
	210					215					220					
Ser	Val	Gln	Gln	Gln	Arg	Gln	Glu	Gln	Ser	Tyr	Phe	Val	Arg	Leu	Gly	
225					230					235					240	
Ser	Leu	Ser	Glu	Arg	Leu	Arg	Gln	His	Ala	Tyr	Glu	His	Ser	Leu	Gly	
				245					250					255		
Lys	Leu	Arg	Ala	Thr	Lys	Gln	Arg	Ala	Gln	Glu	Ala	Leu	Leu	Gln	Leu	
			260					265						270		
Ser	Gln	Ala	Leu	Ser	Leu	Met	Glu	Thr	Val	Lys	Gln	Gly	Val	Asp	Gln	
		275					280					285				
Lys	Leu	Val	Glu	Gly	Gln	Glu	Lys	Leu	His	Gln	Met	Trp	Leu	Ser	Trp	
	290					295					300					
Asn	Gln	Lys	Gln	Leu	Gln	Gly	Pro	Glu	Lys	Glu	Pro	Pro	Lys	Pro	Glu	
305					310					315					320	
Gln	Val	Glu	Ser	Arg	Ala	Leu	Thr	Met	Phe	Arg	Asp	Ile	Ala	Gln	Gln	
				325					330					335		
Leu	Gln	Ala	Thr	Cys	Thr	Ser	Leu	Gly	Ser	Ser	Ile	Gln	Gly	Leu	Pro	
			340					345					350			
Thr	Asn	Val	Lys	Asp	Gln	Val	Gln	Gln	Ala	Arg	Arg	Gln	Val	Glu	Asp	
		355					360					365				
Leu	Gln	Ala	Thr	Phe	Ser	Ser	Ile	His	Ser	Phe	Gln	Asp	Leu	Ser	Ser	
	370					375					380					
Ser	Ile	Leu	Ala	Gln	Ser	Arg	Glu	Arg	Val	Ala	Ser	Ala	Arg	Glu	Ala	
385					390					395					400	
Leu	Asp	His	Met	Val	Glu	Tyr	Val	Ala	Gln	Asn	Thr	Pro	Val	Thr	Trp	
				405					410					415		

Leu Val Gly Pro Phe Ala Pro Gly Ile Thr Glu Lys Ala Pro Glu Glu
420 425 430

Lys Lys

<210> 13
<211> 1305
<212> DNA
<213> Homo sapiens

<220>
<223> Cargo selection protein (mannose 6 phosphate receptor binding
protein) (TIP47), mRNA

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atggtgtccg cagcctatgc ctccaccaag gagagctacc cgcacatcaa gactgtctgc 180
gacgcagcag agaagggagt gaggaccctc acggcggctg ctgtcagcgg ggctcagccg 240
atcctctcca agctggagcc ccagattgca tcagccagcg aatacgccca cagggggctg 300
gacaagttgg aggagaacct ccccatcctg cagcagccca cggagaaggc cctggcggac 360
accaaggagc ttgtgtcgtc taagggtgtc ggggcccagg agatggtgtc tagcgccaag 420
gacacggtgg ccacccaatt gtcggaggcg gtggacgcga cccgcggtgc tgtgcagagc 480
ggcgtggaca agacaaagtc cgtagtgtacc ggccggcgtc aatcggtcat gggctcccgc 540
ttggggcaga tgggtgttgag tggggtcgac acggtgctgg ggaagtcgga ggagtgggag 600
gacaaccacc tgccccttac ggatgccgaa ctggcccgca tcgccacatc cctggatggc 660
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accaagcaga gggcacagga ggctctgctg cagctgtcgc aggtcctaag cctgatggaa 840
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tggtcagct ggaaccagaa gcagctccag ggccccgaga aggagccgcc caagccagag 960
caggctcagat cccgggcgct caccatgttc cgggacattg cccagcaact gcaggccacc 1020
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caggccccgc gccaggtgga ggacctccag gccacgtttt ccagcatcca ctcttccag 1140
gacctgtcca gcagcattct ggcccagagc cgtgagcgtg tcgccagcgc ccgcgaggcc 1200

ctggaccaca tgggtggaata tgtggcccag aacacacctg tcacgtggct cgtgggaccc 1260
tttgcccctg gaatcactga gaaagccccg gaggagaaga agtag 1305

<210> 14
<211> 1305
<212> DNA
<213> Homo sapiens

<220>
<223> Cargo selection protein (mannose 6 phosphate receptor binding protein) (TIP47), mRNA

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cagcagccca gtgtggtgga ccgtgtggcc agcatgcctc tgatcagctc cacctgcgac 120
atggtgtccg cagcctatgc ctccaccaag gagagctacc cgcacatcaa gactgtctgc 180
gacgcagcag agaagggagt gaggaccctc acggcggctg ctgtcagcgg ggctcagccg 240
atcctctcca agctggagcc ccagattgca tcagccagcg aatacgccca cagggggctg 300
gacaagttgg aggagaacct ccccatcctg cagcagccca cggagaaggt cctggcggac 360
accaaggagc ttgtgtcgtc taaggtgtcg ggggcccagg agatggtgtc tagcgccaag 420
gacacggtgg ccaccaatt gtcggaggcg gtggacgcga cccgcggtgc tgtgcagagc 480
ggcgtggaca agacaaagtc cgtagtgacc ggccggcgtc aatcagtcac gggctcccgc 540
ttggggcaga tgggtctgag tggggtcgac acggtgctgg ggaagtcgga ggagtgggcg 600
gacaaccacc tgccccttac ggatgccgaa ctggcccgcg tcgccacatc cctggatggc 660
ttcgacgtcg cgtccgtgca gcagcagcgg caggaacaga gctacttcgt acgtctgggc 720
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accaagcaga gggcacagga ggctctgctg cagctgtcgc aggccctaag cctgatggaa 840
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tggtcagct ggaaccagaa gcagctccag ggccccgaga aggagccgcc caagccagag 960
caggtcgagt cccgggcgct caccatgttc cgggacattg ccagcaact gcaggccacc 1020
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cagggccgcc gccaggtgga ggacctccag gccacgtttt ccagcatcca ctcttccag 1140
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ctggaccaca tgggtggaata tgtggcccag aacacacctg tcacgtggct cgtgggaccc 1260
tttgcccctg gaatcactga gaaagccccg gaggagaaga agtag 1305

<210> 15
<211> 1305
<212> DNA
<213> Homo sapiens

<220>

<223> Placental protein 17b1 (PP17) mRNA, complete cds

<400> 15

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atggtgtccg cagcctatgc ctccaccaag gagagctacc cgcacgtcaa gactgtctgc      180
gacgcagcag agaagggagt gaggaccctc acggcggtcg ctgtcagctg ggctcagccg      240
atcctctcca agctggagcc ccagattgca tcagccagcg aatacgccca cagggggctg      300
gacaagttgg aggagaacct ccccatgctg cggcagccca cggagaaggt cctggcggac      360
accaaggagc ttgtgtcgtc taagggtgctg ggggcccagg agatggtgtc tagcgccaag      420
gacacggtgg ccaccaatt gtcggaggcg gtggacgcga cccgcggtgc tgtgcagagc      480
ggcgtggaca agacaaagtc cgtagtgacc ggcggcgctc aatcggtcat gggctcccgc      540
ttgggccaga tgggtgctgag tggggtcgac acggtgctgg ggaagtcgga ggagtgggcg      600
gacaaccacc tgccccttac ggatgccgaa ctggcccgca tcgccacatc cctggatggc      660
ttcgacgtcg cgtccgtgca gcagcagcgg caggaacaga gctacttcgt acgtctgggc      720
tccctgtcgg agaggctgcg gcagcacgcc tatgagcact cgctgggcaa gcttcagacc      780
accaagcaga gggcacagga ggctctgctg cagctgtcgc aggccctaag cctgatggaa      840
actgtcaagc aaggcgttga tcagaagctg gtggaaggcc aggagaagct gcaccagatg      900
tggctcagct ggaaccagaa gcagctccag ggccccgaga aggagccgcc caagccagag      960
caggtcgagt cccgggcgct caccatgttc cgggacattg cccagcaact gcaggccacc     1020
tgtacctccc tgggggtccag cattcagggc ctccccacca atgtgaagga ccaggtgcag     1080
caggccccgc gccaggtgga ggacctccag gccacgtttt ccagcatcca ctcttccag     1140
gacctgtcca gcagcattct ggcccagagc cgtgagcgtg tcgccagcgc ccgcgaggcc     1200
ctggaccaca tgggtggaata tgtggcccag aacacacctg tcacgtggct cgtgggacct     1260
tttgcccctg gaatcactga gaaagccccg gaggagaaga agtag                               1305
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<210> 16
<211> 756
<212> DNA
<213> Homo sapiens

<220>

<223> Placental protein 17a2 (PP17) mRNA, complete cds

<400> 16

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gcgtccgtgc agcagcagcg gcaggaacag agctacttcg tacgtctggg ctccctgtcg      180
gagaggctgc ggcagcacgc ctatgagcac tcgctgggca agcttcgagc caccaagcag      240
agggcacagg aggctctgct gcagctgtcg caggccctaa gcctgatgga aactgtcaag      300
caaggcgctt atcagaagct ggtggaaggc caggagaagc tgcaccagat gtggctcagc      360
tggaaccaga agcagctcca gggccccgag aaggagccgc ccaagccaga gcaggtcgag      420
tcccgggcgc tcacatggtt ccgggacatt gccagcaac tgcaggccac ctgtacctcc      480
ctgggggtcca gcattcaggg cctccccacc aatgtgaagg accagggtgca gcaggcccg      540
cgccagggtg aggacctcca ggccacgttt tccagcatcc actccttcca ggacctgtcc      600
agcagcattc tggcccagag ccgtgagcgt gtcgccagcg cccgcgaggc cctggaccac      660
atggtggaat atgtggccca gaacacacct gtcacgtggc tcgtgggacc ctttgccct      720
ggaatcactg agaaagcccc ggaggagaag aagtag                                     756
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<210> 17

<211> 1305

<212> DNA

<213> Homo sapiens

<220>

<223> Cargo selection protein (mannose 6 phosphate receptor binding protein), clone MGC:11117 IMAGE:3833411, mRNA, complete cds

<400> 17

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atggtgtccg cagcctatgc ctccaccaag gagagctacc cgcacatcaa gactgtctgc      180
gacgcagcag agaaggagtg gaggaccctc acggcggctg ctgtcagcgg ggctcagccg      240
atcctctcca agctggagcc ccagattgca tcagccagcg aatacgccca cagggggctg      300
gacaagttgg aggagaacct ccccatcctg cagcagccca cggagaaggt cctggcggac      360
accaaggagc ttgtgtcgtc taagggtgtc ggggccaag agatgggtgc tagcgccaag      420
gacacgggtg ccaccaatt gtcggaggcg gtggacgcga cccgcggtgc tgtgcagagc      480
ggcgtggaca agacaaagtc cgtagtgacc ggcggcgtcc aatcagtcac gggctcccg      540
ttggggcaga tgggtgtgag tggggtcgac acggtgctgg ggaagtcgga ggagtgggcg      600
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gacaaccacc tgccccttac ggatgccgaa ctggcccgcg tgcacacatc cctggatggc 660
ttcgacgtcg cgtccgtgca gcagcagcgg caggaacaga gctacttcgt acgtctgggc 720
tccctgtcgg agaggtgcg gcagcacgcc tatgagcact cgctgggcaa gcttcgagcc 780
accaagcaga gggcacagga ggctctgctg cagctgtcgc aggccctaag cctgatggaa 840
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caggctcagct cccgggcgct caccatgttc cgggacattg ccagcaact gcaggccacc 1020
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tttgcccctg gaatcactga gaaagccccg gaggagaaga agtag 1305

<210> 18
<211> 1305
<212> DNA
<213> Homo sapiens

<220>
<223> Cargo selection protein (mannose 6 phosphate receptor binding protein), clone MGC:3816 IMAGE:2905275, mRNA, complete cds

<400> 18
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cagcagccca gtgtggtgga ccgtgtggcc agcatgcctc tgatcagctc cacctgagac 120
atggtgtccg cagcctatgc ctccaccaag gagagctacc cgcacatcaa gactgtctgc 180
gacgcagcag agaaggaggt gaggaccctc acggcggtcg ctgtcagcgg ggctcagccg 240
atcctctcca agctggagcc ccagattgca tcagccagcg aatacgccca cagggggctg 300
gacaagttgg aggagaacct ccccatcctg cagcagccca cggagaaggt cctggcggac 360
accaaggagc ttgtgtcgtc taagggtgtcg ggggcccgaag agatggtgtc tagcgccaag 420
gacacggtgg ccacccaatt gtcggaggcg gtggacgcga cccgcggtgc tgtgcagagc 480
ggcgtggaca agacaaagtc cgtagtgacc ggcggcgtcc aatcagtcac gggctcccgc 540
ttggggccaga tgggtgtgag tgggggtcgac acggtgctgg ggaagtcgga ggagtgggcg 600
gacaaccacc tgccccttac ggatgccgaa ctggcccgcg tgcacacatc cctggatggc 660
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<210> 19

<211> 1305

<212> DNA

<213> Homo sapiens

<220>

<223> Cargo selection protein TIP47 (TIP47) mRNA, complete cds

<400> 19

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<211> 1305
<212> DNA
<213> Homo sapiens

<220>
<223> Cargo selection protein (mannose 6 phosphate receptor binding protein), clone MGC:15516 IMAGE:3028104, mRNA, complete cds

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<211> 1305
<212> DNA
<213> Homo sapiens

<220>
<223> Cargo selection protein (mannose 6 phosphate receptor binding protein), clone MGC:2012 IMAGE:2987965, mRNA, complete cds

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<220>
<223> Placental protein 17a1 (PP17) mRNA, complete cds

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<220>
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<400> 23

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<210> 24
<211> 7
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<213> Artificial

<220>
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<400> 24

Asp Glu Val Asp Ala Pro Lys
1 5

<210> 25
<211> 8
<212> PRT
<213> Artificial

<220>
<223> Synthetic Peptide

<400> 25

Val Asp Gln Met Asp Gly Trp Lys
1 5

<210> 26
<211> 7
<212> PRT
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<400> 26

Asp Glu Val Asp Ala Arg Lys
1 5

<210> 27
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1 5

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<400> 29

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1 5

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<400> 30

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<210> 31
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<400> 31

Val Gln Val Asp Gly Trp Lys
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